



Regional and Shinkin Banks'
Recent Efforts to Address Climate Change

The total of regional banks and *shinkin* banks covered in this *Report* is as follows (as at end-March 2022).

Regional banks comprise the 62 member banks of the Regional Banks Association of Japan (Regional banks I) and the 37 member banks of the Second Association of Regional Banks (Regional banks II). Shinkin banks are the 247 shinkin banks that hold current accounts at the Bank of Japan.

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Background

The Bank of Japan's *Financial System Report* has two main objectives: to assess the stability of Japan's financial system from a macroprudential perspective and to communicate with all relevant parties on any tasks and challenges ahead in order to ensure the system's stability.

The *Financial System Report* provides a comprehensive assessment of the financial system twice a year and is occasionally supplemented by *Financial System Report Annex Series* papers, which provide more detailed analyses and insights on specific topics.

Abstract

Amid the growing recognition that addressing climate change is a global issue that could have a wide impact on society and the economy in the future, small and medium-sized enterprises (SMEs), which are the primary client firms of regional and *shinkin* banks, are increasingly taking steps to address climate change on their own accord. Against this background, regional banks are increasingly offering support to client firms in their efforts to address climate change by providing financial and non-financial services, and are also making efforts to comply with regulations and identify and manage climate-related financial risks they as financial institutions are required to address. Such efforts not only offer regional and *shinkin* banks new profit opportunities, but also reduce their own climate-related financial risks, allowing them to maintain their market competitiveness and differentiate their services as well as strengthen their business foundations by managing their medium- and long-term capital costs. Focusing in particular on regional banks, this paper introduces regional and *shinkin* banks' recent efforts to support their client firms, comply with regulations, and manage risks, and outlines expectations for progress in their efforts to address climate change. As such, this paper aims to serve as a reference for regional and *shinkin* banks in making further progress in their efforts to address climate change.

I. Introduction

Addressing climate change is increasingly recognized as a global issue that could have a wide impact on society and the economy in the future, and efforts are being made to address this issue. In Japan, like in other countries, major financial institutions have made steady progress in addressing climate-related financial risks; for example, in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), they have released TCFD reports and disclosed the estimated impact of climate-related financial risks based on their own scenario analyses.¹

Against this background, regional and *shinkin* banks are also making efforts to address climate change. This paper presents the results of a survey of regional banks and *shinkin* banks conducted by the Financial System and Bank Examination Department of the Bank of Japan between June 20 and July 25, 2022, as well as regional and *shinkin* banks' efforts to support their client firms, comply with regulations, and manage risks, with a focus on regional banks, utilizing disclosure materials such as regional and *shinkin* banks' integrated reports. In addition, the paper provides an overview of the challenges that regional and *shinkin* banks face in making further progress in their efforts to address climate change.

II. Environment surrounding regional banks

Climate change responses of small and medium-sized enterprises

Among small and medium-sized enterprises (SMEs), the main client firms of regional banks, awareness of the United Nation's Sustainable Development Goals (SDGs) has been gradually spreading, with the share of SMEs actively making efforts toward the SDGs increasing over the past few years, and many of them have made addressing climate change a priority area among the 17 SDGs (Chart 1).

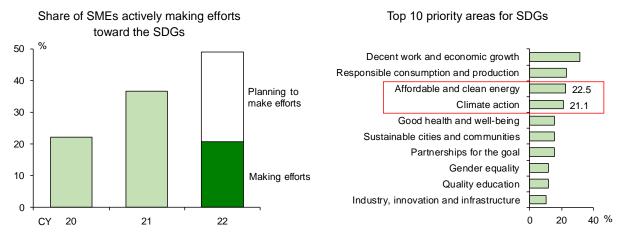


Chart 1: Firms' awareness of SDGs

Notes: 1. The latest survey is as of June 2022. The survey covers 25,405 firms in Japan, with 11,337 valid responses (including 9,469 SMEs).

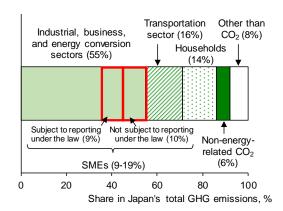
- 2. The left panel shows the share of firms that responded that they were making or planning to make efforts to the questions about efforts toward the SDGs.
- 3. The right panel shows the share of firms that responded with areas that they were focusing on among the 17 SDGs (multiple answers were allowed).

Source: Teikoku Databank, "Survey of Corporate Attitudes Toward the SDGs."

¹ For more information on recent efforts in Japan and abroad, see Section E of Chapter IV in the October 2022 issue of the Bank's *Financial System Report*.

SMEs account for about 10-20 percent of Japan's total greenhouse gas (GHG) emissions (Chart 2). According to the survey, about 10 percent of SMEs have been asked by large firms within the supply chains that they are part of to decarbonize their operations (left panel of Chart 3). Recently, however, there has been a growing trend among SMEs to make efforts to address climate change on their own accord. Since the benefits of addressing climate change materialize only gradually over the very long-term and involve externalities, for individual firms, spending on and investing in climate change responses will result in higher costs in the short term. Therefore, it appears that, in addition to the financial aspect -- such as lower utility and fuel costs -- SMEs' efforts toward decarbonization also aim at non-financial goals such market competitiveness, employee motivation, and greater ability to attract human resources (right panel of Chart 3).

Chart 2: GHG emissions of SMEs



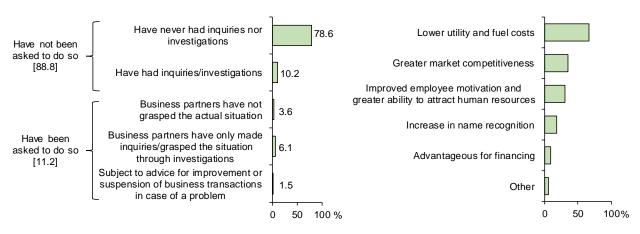
Note: As of fiscal 2017. The Law Concerning the Promotion of the Measures to Cope with Global Warming requires businesses with total energy consumption in crude oil equivalent of 1,500 kl/year or more to calculate their own GHG emissions as specified emitters and report them to the government.

Source: Ministry of Economy, Trade and Industry.

Chart 3: Reasons why SMEs are working on decarbonization

Whether SMEs have been asked by business partners to decarbonize their operations

Positive effects of promoting decarbonization



Notes: 1. The survey covers 20,000 SMEs in Japan, with 5,318 valid responses (survey period: November-December 2021).

The right panel shows the number of SMEs that responded that they were making or planning to make efforts toward decarbonization (multiple answers were allowed).

Source: Tokyo Shoko Research, "Survey on SMEs' business principles and strategies."

As expectations and actual experience with regard to these aspects spread in society, more SMEs will have an incentive to make efforts to address climate change, which will in turn lead to more opportunities for regional and *shinkin* banks to support SMEs in these efforts. It would also be valuable for regional and *shinkin* banks to communicate the benefits of addressing climate change to SMEs.

Developments in information disclosure, regulation, and supervision

The following is an overview of the environment surrounding regional banks in terms of information disclosure, regulation, and supervision regarding responses to climate change. Starting with information disclosure, the Corporate Governance Code was revised in June 2021, and listed firms are required to formulate basic policies and make appropriate disclosures regarding their sustainability efforts. Specifically, firms listed on the Prime Market should collect and analyze necessary data on the impact of climate change risks and opportunities on their business activities and profits, and enhance the quality and quantity of disclosure based on the TCFD recommendations or an equivalent international framework.

Turning to regulation and supervision, in July 2022, the Financial Services Agency (FSA) released its "Supervisory Guidance on Climate-Related Risk Management and Client Engagement," which outlines the FSA's approach to financial institutions' climate change responses and the viewpoints on supervisory dialogues with financial institutions. The Guidance states that financial institutions should provide support for client firms on the basis of their own independent management decisions, taking into account the size and characteristics of financial institutions, as well as client firms' industry and type of business, business strategies and policies, etc. Moreover, it states that, with regard to responding to risks, it is important for financial institutions to at least qualitatively assess the significance of climate-related risks while taking their own business characteristics into account and that, in the future, it is desirable to conduct quantitative assessments, such as measuring the amount of risk by utilizing scenario analysis.² In this regard, the Guidance further states that it is desirable for financial institutions other than systemically important banks to gradually adopt scenario analysis methods -- methods that help financial institutions to measure their profit opportunities and risks -- appropriate for their size and characteristics, while observing the progress in practices at systemically important banks.

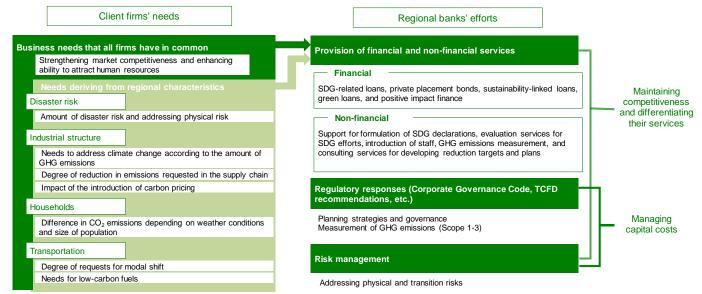
III. Efforts by regional banks

The needs of client firms in addressing climate change consist of business needs that all firms have in common with regard to aspects such as strengthening their market competitiveness and attracting human resources, as described in Section II, and of needs deriving from regional characteristics due to differences in the risk of natural disasters and industrial structures in the region where a firm is located. While regional banks have long been supporting client firms in their various business challenges, it is expected that they will also start providing support to client firms in their efforts to address climate change by providing financial and non-financial services to meet common business needs as well as region-specific needs and that, moreover, they will make efforts to comply with regulations and address climate-related financial risks in line with their own size and characteristics (Chart 4).

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² In March 2021, the Ministry of the Environment published the "Practical Guide for Scenario Analysis of Climate Change Risks and Opportunities in Accordance with TCFD Recommendations (for the Banking Sector)" in order to enhance the disclosure of climate-related information by financial institutions. In March 2022, a revised version (Practical Guide Ver. 2.0) based on the results of analytical support provided to three financial institutions was published.

Chart 4: Client firms' needs to address climate change and regional banks' efforts

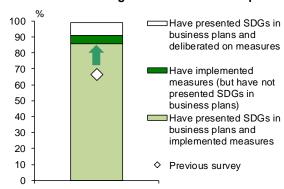


Providing such support to client firms not only offers regional banks new profit opportunities, but also reduces their own climate-related financial risks, allowing them to maintain their competitiveness and differentiate their services as financial institutions and to strengthen their business foundations by managing their medium- and long-term capital costs. In fact, a growing number of regional banks have positioned the SDGs, including climate change efforts, as a priority area in their business plans and are pushing ahead with various measures to address the SDGs, with the share recently reaching approximately 90 percent (Chart 5). The following sections review the specific efforts made by regional banks to support their client firms, comply with regulations, and manage risks.

Efforts to support client firms³

Reasons why SMEs are currently dragging their feet in their decarbonization efforts are informational factors such as firms thinking that their emissions are small, a lack of basic knowledge and understanding, or firms not expecting such efforts to be cost-effective, as well as financial constraints such as a lack of financial resources (Chart 6). It is expected that regional banks will support their clients firms' efforts to address climate change in a step-by-step manner by proposing and providing services that match these SMEs' current views and status of efforts, that is, the

Chart 5: Positioning of SDGs in business plans

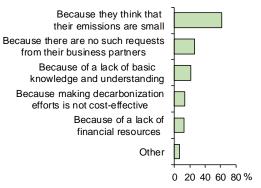


Notes: 1. Covers regional banks.

2. "Previous survey" indicates the share of regional banks that responded that they had presented SDGs in business plans and implemented specific measures in the fiscal 2021 survey (survey period: June-July 2021).

Source: BOJ.

Chart 6: Reasons why SMEs are not working on decarbonization



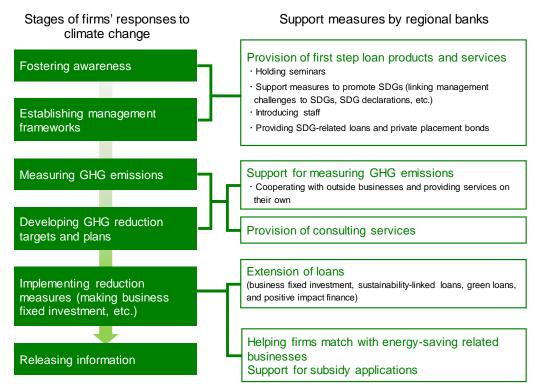
Note: Multiple answers were allowed.

Source: Tokyo Shoko Research, "Survey on SMEs' business principles and strategies."

³ See also Appendixes 1 and 2 at the end of this paper for details and examples of efforts to support client firms, including with regard to SDGs.

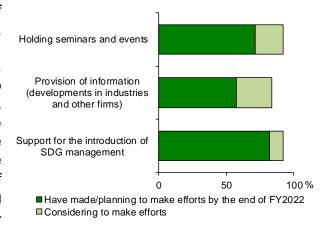
stage that client firms are at in addressing climate change (Chart 7).

Chart 7: Stages of firms' responses to climate change and support measures by regional banks



Many of the measures that firms take to reduce GHG emissions involve business decisions and expensive investment decisions, such as the introduction of energy-saving equipment and renewable energy, switching to raw materials with lower GHG emissions, and improving the efficiency of transportation routes. Therefore, in order to encourage SMEs, which tend to make decisions in a top-down fashion, to take action, it is particularly important, as a first stage, to gain the understanding of management with regard to the significance and necessity of addressing climate change.4 In this respect, about 70-80 percent of regional banks are already focusing on fostering awareness among their client firms through nonfinancial services, such as holding seminars and events, as well as supporting the introduction of SDG management by providing support for the formulation of SDG declarations and evaluation services for SDG efforts (Chart 8).

Chart 8: Efforts in terms of non-financial services



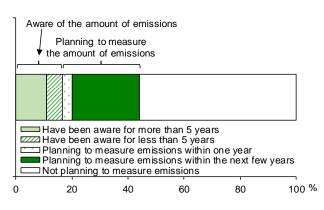
Note: Covers regional banks.

Source: BOJ.

⁴ See Arimura, T., Sugino, M., and Washizu, A., eds., *Kābon puraishingu no furontia* [Frontiers in Carbon Pricing] (Tokyo: Nippon Hyoron Sha Co., Ltd., 2022). Looking at the results of the questionnaire in Chapter 5, more than 70 percent of both SME establishments and large-firm establishments answered that "permission by the management" was an important factor to promote energy efficiency and conservation measures.

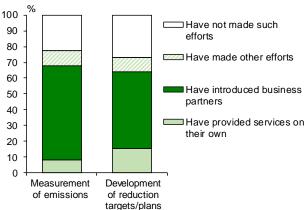
Moreover, while for SMEs efforts to address climate change are upfront costs and the benefits are less immediately apparent than for other business investments, there are moves to measure GHG emissions as the next stage, and more than 20 percent of all SMEs plan to measure their GHG emissions within the next few years (Chart 9). Against this background, regional banks, as one means of resolving the issue, have rapidly expanded their efforts over the past year to support their client firms by providing emissions measurement services and consulting services for developing reduction targets and plans, in cooperation with outside firms, with more than 70 percent of regional banks making some kind of effort in this direction (Chart 10). In particular, with regard to the latter, some regional banks, especially some of the relatively large regional banks in urban areas, have begun to offer this service on their own.

Chart 9: SMEs' awareness of the amount of their GHG emissions



Source: Tokyo Shoko Research, "Survey on SMEs' business principles and strategies."

Chart 10: Efforts toward measuring GHG emissions and developing reduction targets/plans



Notes: 1. Covers regional banks.

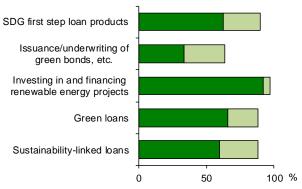
The figures are based on efforts that each bank focuses on the most with regard to measuring GHG emissions and developing reduction targets/plans for their client SMEs and micro firms.

Source: BOJ.

In terms of financial services, more than half of regional banks have announced sustainable finance targets, and about half are actively making efforts to offer first step loan products and issue private placement bonds to raise client firms' awareness of the SDGs, such as SDG loans that do not specify the use of the funds to achieve SDG targets. In addition, about 90 percent of regional banks are investing in and financing renewable energy projects (Chart 11). Moreover, many firms' efforts toward decarbonization involve fixed capital investments, such as the installation of energy-efficient equipment. Regional banks are not only responding to this demand for funds in the form of standard loans for business fixed investment, but recently have also been increasingly offering green loans and sustainability-linked loans. Although the number of such loans extended is still low, it has increased significantly in recent years in response to firms' needs (Chart 12).⁵

⁵ While this section presents regional banks' support for client firms in the form of financial and non-financial services, other efforts include cooperation with municipalities and other entities to decarbonize the region. Some regional banks have established consultative bodies with various local entities, such as universities and businesses, and are holding seminars and sharing advanced case studies.

Chart 11: Efforts in terms of financial services

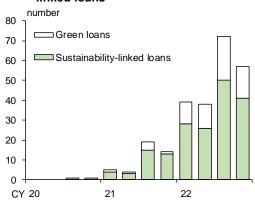


■ Have made/planning to make efforts by the end of FY2022 □ Considering to make efforts

Note: Covers regional banks.

Source: BOJ.

Chart 12: Number of green loans and sustainabilitylinked loans



Note: Latest data as of the October-December quarter of 2022. Covers regional banks. For syndicated loans, the number of loans in which regional banks act as arrangers is aggregated.

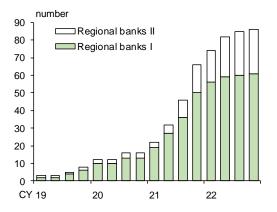
Source: Ministry of the Environment.

Regulatory compliance and risk management efforts

This section reviews regional banks' recent efforts to comply with regulations and identify and manage climate-related financial risks. Approximately 90 percent of regional banks support the TCFD recommendations. In terms of the disclosure of items suggested in the TCFD recommendations (governance, strategy, risk management, and metrics and targets), regional banks have substantially expanded their disclosure over the past year, with a particular increase in the disclosure of "investment and lending policies" and "investment and lending targets." Regional banks are significantly increasing the quality of their efforts, from the endorsement of TCFD recommendations to the practical disclosure of information, including quantitative information (Chart 13).

Chart 13: Endorsement of TCFD recommendations

Number of banks that have endorsed TCFD recommendations



Disclosure based on the framework of TCFD recommendations

numbe			
		Recent	One year ago
Disclosure of information		76	16
Governance		76	14
	Carbon-related exposure	52	6
Strategy	Scenario analysis	75	10
	Quantitative analysis	35	1
Risk	Investment and lending policies	67	2
management	Identification of top risks	8	4
Matrice and	Investment and lending targets	64	7
Metrics and Targets	Emission reduction targets	68	13
rargets	Scope 3 reduction targets	5	-

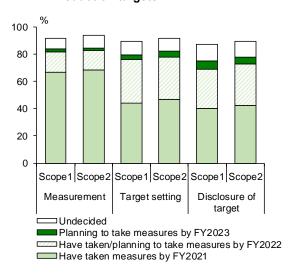
Notes: 1. In the left panel, subsidiary banks are considered to have endorsed TCFD recommendations if their holding companies (or parent companies) endorse them.

2. The right panel shows disclosed information of each bank in its integrated report by category. Based on documents released by each bank as of October 2022.

Sources: TCFD; Published accounts of each bank and financial group.

Although the GHG reduction targets of the majority of regional banks are limited to Scope 1 and Scope 2 emissions,⁶ about 70 percent were planning to disclose their targets by the end of fiscal 2022 (Chart 14). Further, while -- even when looking ahead to fiscal 2023 -- only about 10 percent were planning to disclose targets for Scope 3 emissions, some regional banks, especially those of relatively large size, have begun to measure Scope 3 emissions falling under Category 15, "Investments," albeit only for listed firms (Chart 15).

Chart 14: Measurement of regional banks' GHG emissions and setting/disclosure of reduction targets



Note: Covers regional banks.

Source: BOJ.

Chart 15: Disclosure of Scope 3 emissions

		Measurement	Target setting	Disclosure of target
1	Purchased goods and services	23	12	11
2	Capital goods	16	6	6
	Fuel- and energy-related activities	14	7	8
	Upstream transportation and deistribution	19	10	9
5	Waste generated in operations	19	10	8
6	Business travel	28	10	12
7	Employee commuting	29	10	12
	Upstream leased assets	5	1	1
	Downstream transportation and distribution	7	4	4
10	Processing of sold products	5	2	2
11	Use of sold products	5	2	2
12	End-of-life treatment of sold products	9	6	6
13	Downstream leased assets	5	3	3
14	Franchises	4	2	2
15	Investments	19	13	12

Note: Covers regional banks.

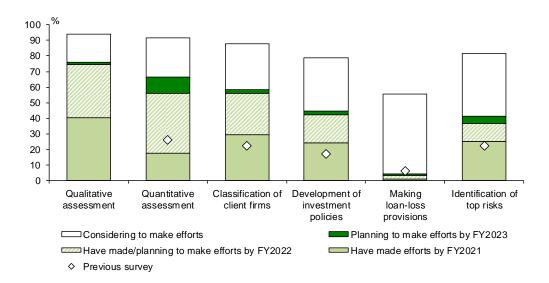
Source: BOJ.

Next, regional banks' risk management efforts focusing on credit portfolios are reviewed. Many regional banks are conducting qualitative assessments of the "transition risks" posed by changes in regulations, technology, market conditions, and other factors associated with the transition to carbon neutrality, as well as the "physical risks" posed by the intensification of natural disasters and changes in temperature and precipitation; in addition, efforts toward quantitative assessments and disclosures can also increasingly be seen (Charts 13 and 16). However, only a small number of regional banks are implementing or considering in-depth measures, such as making loan-loss provisions for climate change risks.

⁶ Under the Greenhouse Gas Protocol, firms' GHG emissions are the total amount of all emissions related to a firm's business activities, not just the emissions of the firm itself, and consist of Scope 1 to 3 emissions. Scope 1 emissions are the direct emissions of a firm itself, Scope 2 emissions are indirect emissions from the use of electricity, heat, and steam supplied by other firms, and Scope 3 emissions are indirect emissions other than Scope 1 and Scope 2 emissions (emissions by other firms related to the firm's own activities).

⁷ The TCFD's October 2021 Annex, "Implementing the Recommendations of the Task Force on Climate-Related Financial Disclosures," states that for Scope 3 emissions, banks should disclose GHG emissions for their lending and other financial intermediary business activities where data and methodologies allow.

Chart 16: Efforts in terms of risk management



Notes: 1. Covers regional banks.

"Previous survey" indicates the share of regional banks that responded that they had made efforts or were considering to make efforts in the fiscal 2021 survey. "Classification of client firms" indicates classification of client firms that face climate change risks. "Development of investment policies" and "Making loan-loss provisions" concern those client firms.

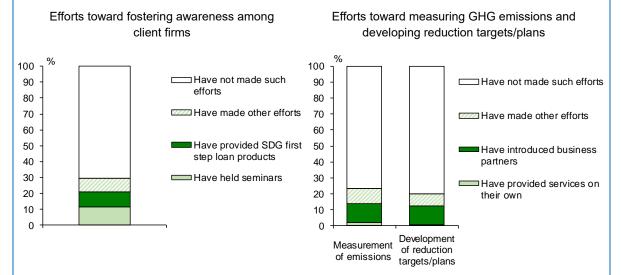
Source: BOJ.

Recently, regional banks in their quantitative assessments have been working to calibrate the credit costs of transition and physical risks up to 2050, using the help of outside consulting firms, given their own staffing and data constraints. While the energy sector has been the main focus for the measurement of transition risks, regional banks have started to expand the sectors they focus on based on the characteristics of their own loan portfolios. This is especially the case for banks in regions where the automobile industry, which is regarded to be relatively vulnerable to the impact of decarbonization, makes up a large share of their loan portfolios. Moreover, some regional banks, focusing mainly on flood scenarios, have been measuring physical risks in terms of the impact of a decline in the value of collateral or the suspension of client firms' business, taking into account the damage caused by past disasters in the region where they operate. A fair number of regional banks have been disclosing the credit costs associated with transition and physical risks estimated in this way, including the assumptions used in the estimates, in their integrated reports.

Box: Shinkin banks' efforts to address climate change

Some *shinkin* banks have also endorsed the TCFD recommendations in 2022, and especially relatively large ones are gradually starting to make efforts to address climate change, such as announcing sustainable finance targets and, using outside organizations, beginning to support client firms in measuring GHG emissions (Chart B-1). Under these circumstances, the Shinkin Central Bank, the central institution of financial cooperatives, will support *shinkin* banks and their client firms' climate change responses, and it is expected that efforts to address climate change will make progress among all *shinkin* banks and the Shinkin Central Bank going forward.

Chart B-1: Shinkin banks' efforts to support client firms



- Notes: 1. The figures in the left panel are based on efforts that each bank focuses on the most to address the lack of awareness of the need to address climate change among their client SMEs and micro firms.
 - 2. The figures in the right panel are based on efforts that each bank focuses on the most with regard to measuring GHG emissions and developing reduction targets/plans for their client SMEs and micro firms.

Source: BOJ.

IV. Toward progress in addressing climate change

Support for client firms based on regional characteristics

The role of regional banks is to support the growth of regional economies by smoothly performing their financial intermediation function, and one important factor regional banks should consider when managing risks and supporting client firms in addressing climate change would be regional characteristics. As discussed in Section III, there are needs that derive from regional characteristics, including the extent of the risk of natural disasters and differences in industrial structure, that should be taken into account when client firms proceed with addressing climate change. First, with regard to physical risks, there is considerable variation across prefectures in the amount of damage caused by floods, and the risks faced are larger and more readily apparent in regions where windstorms and floods cause significant damage than in regions where they do not (left panel of Chart 17). Next, with regard to transition risks, there is also considerable variation across prefectures in manufacturing-related CO₂ emissions per unit of value added, and the risks faced are larger and more readily apparent in regions with industries that emit large amounts of GHGs

(right panel of Chart 17). Moreover, the demand for decarbonization from client firms also differs by industry,⁸ and some say that there are differences in the level of interest in reducing GHG emissions within the supply chains that SMEs are part of.

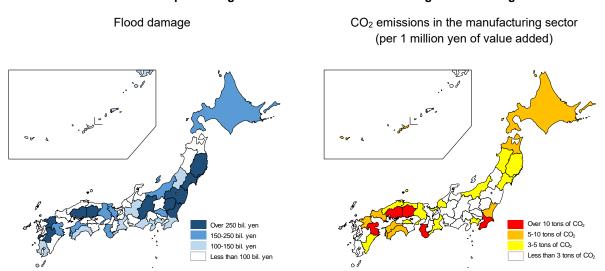


Chart 17: Examples of regional characteristics in addressing climate change

Notes: 1. The left panel shows cumulative amount of flood damage from 2011 to 2020.

2. The figures in the right panel are estimated by the Bank of Japan using CO₂ emissions by prefecture and value added of the manufacturing sector for fiscal 2019.

Sources: Cabinet Office, "Prefectural Accounts"; Ministry of Land, Infrastructure, Transport and Tourism, "Flood statistics"; Ministry of the Environment.

Among the efforts of individual regional banks to support their client firms, there are some that take such regional characteristics into account. However, for client firms themselves, operating in a particular region only, it may be difficult to notice differences in risks due to regional characteristics, since such differences are relative to other regions. Against this background, regional banks' role is to take a medium- to long-term perspective to reduce their own climate-related financial risks by providing support to their client firms to help them address climate change, based on a bird's-eye view of the regional characteristics of their business areas from the perspective of supporting the growth of regional economies.

Steady progress in regulatory compliance and risk management efforts

Although regional banks have made progress in their efforts to identify and manage climate-related financial risks, overall, they are still at the beginning stage. There is a high level of uncertainty, including with respect to international developments, regarding discussions on climate-related financial risk regulations such as loan-loss provisioning. Regional banks need to take these developments into account and increase the sophistication of their risk management efforts in line with their size and characteristics. In this regard, one important aspect for regional banks, in addition to monetizing non-financial services related to client support, is to press ahead with

⁸ Shoko Chukin Bank, "Awareness survey on carbon neutrality among small and medium-sized enterprises (July 2021 survey)" (available only in Japanese).

⁹ For major banks, the FSA and the Bank of Japan, in collaboration with the banks, conducted a pilot scenario analysis exercise using the scenarios published by the Network for Greening the Financial System (NGFS) as common scenarios.

measuring climate-related financial risks while appropriately reflecting these risks in the prices of the financial and non-financial services they provide.

V. Conclusion

Regional banks are making progress in their efforts to address climate change, in terms of both providing support to their client firms and risk management. In terms of client support, while the majority of regional banks are focusing on raising awareness among client firms with regard to addressing climate change, many are also providing non-financial services such as GHG emissions measurement support and consulting through partnerships with outside firms. Moreover, in terms of financial services, many are proactively providing SDG loans and are also increasing the extension of green loans and sustainability-linked loans. Going forward, it is expected that regional banks will continue to support their clients' efforts to address climate change by proposing and providing services that match their clients' current views and status of efforts to address climate change, that is, the stage of addressing climate change they are currently at. Moreover, from a broader perspective, it is expected that regional banks will reduce their own climate-related financial risks by providing support to their clients based on regional characteristics. In terms of risk management, there are growing moves toward the quantitative calibration and disclosure of transition and physical risks, and it is expected that banks will continue to upgrade their efforts over the medium to long term in line with their size and characteristics.

Using the results of the questionnaire and other information obtained, the Bank will continue to engage in in-depth dialogue with regional and *shinkin* banks to ascertain the progress in their efforts and challenges, according to their size and characteristics, with respect to (1) the identification and management of climate-related financial risks, (2) measures to enhance the quality and quantity of disclosure based on the recommendations of the TCFD, and (3) engagement with client firms in pursuit of decarbonization. ¹⁰ Moreover, reflecting the progress in their efforts, the number of regional and *shinkin* banks eligible for loans under the Funds-Supplying Operations to Support Financing for Climate Change Responses has been increasing in recent months. ¹¹ The Bank will continue to support private financial institutions' various efforts in fields related to climate change with funding through the funds-supplying operations.

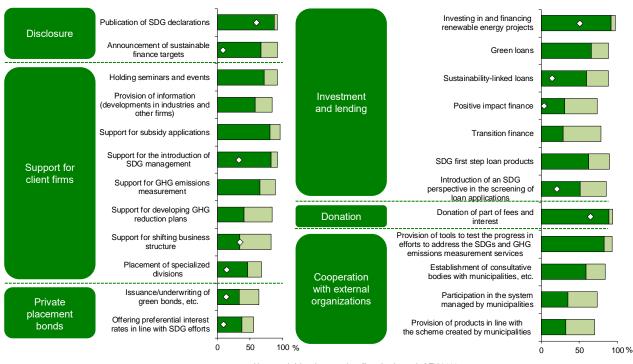
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¹⁰ See Bank of Japan, "On-Site Examination Policy for Fiscal 2023" (March 2023).

¹¹ As of December 2022, 57 regional and *shinkin* banks were eligible for loans.

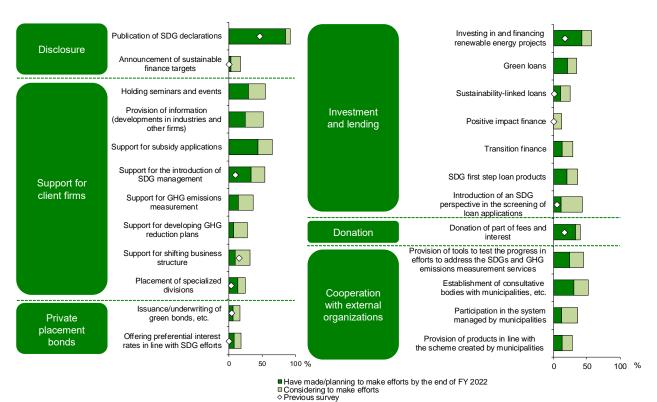
Appendix 1: Efforts toward the SDGs

Regional banks



■ Have made/planning to make efforts by the end of FY 2022
 □ Considering to make efforts
 ♦ Previous survey

Shinkin banks



Note: "Previous survey" indicates the results of the fiscal 2021 survey (survey period: June-July 2021).

Source: BOJ.

Appendix 2: Examples of regional banks' efforts

Non-financial services

- Development of a scoring model in collaboration with a local university to index and assess firms' ESG/SDG efforts.
- Support for the formulation of SDG declarations after assessment of the status of client firms' SDG efforts using check sheets, etc. Publication of client firms' SDG declaration on the bank's own website.
- Partnerships with firms that provide CO₂ emissions measurement services to propose plans tailored to the budget and needs of client firms.
- Bank staff members, after receiving training from a partner firm, provide consulting services to client firms on issues ranging from the measurement to the reduction of CO₂ emissions.
- Joint development of tools to measure and manage CO₂ emissions with a firm and provision of these tools to SMEs.
- Provision of solutions such as the introduction of decarbonization equipment and power generation equipment through leasing by utilizing a leasing company within the same group as the bank.
- Support for the formulation of specific measures and key performance indicators (KPIs) to resolve management issues in achieving SDGs through the use of check sheets. Subsequently, monitoring of progress in achieving the measures and KPIs and provision of solutions.
- Entry into the renewable energy business and provision of solutions to reduce CO₂ emissions at client firms and in local communities through subsidiaries.

Financial services

- Provision of tailor-made loans with interest rate reductions depending on the extent of cuts in GHG emissions.
- Launch of mortgage loans with preferential interest rates for zero energy homes and energyefficient homes.
- Obtained a third-party opinion on the conformity of their Sustainability-Linked Loan frameworks with international principles.
- Launch of private placement bonds with the option to purchase J-Credits.

Efforts to measure banks' GHG emissions (Scope 1 to 3 emissions)

- Accelerated the achievement of their own carbon neutrality targets (Scope 1 and 2 emissions) from 2050 to 2030.
- Switch to electricity from renewable energy sources for head office buildings.
- Estimation of Scope 3 emissions for loans to domestic firms referring to the Partnership for Carbon Accounting Financials (PCAF) measurement method.
- Start of measuring Scope 3 emissions mainly of listed firms in banks' loan portfolios that have already disclosed or measured their GHG emissions.

Risk management

- Focusing on the food services and accommodations sectors, transition risks were measured by assuming a scenario of a decrease in tourist arrivals due to air travel restrictions.
- Focusing on the automobile sector, transition risks were measured by assuming a scenario in which sales of new vehicles with an internal combustion engine were suspended.
- For the measurement of physical risks, the impact on the value of collateral due to damage to real estate collateral (buildings), etc., that would occur in the case of flooding of a specific river was estimated.
- With the support of an external institution, the impact of physical risks on credit costs due to damage to real estate collateral and a deterioration in client firms' business performance as a result of large-scale flooding was estimated using flood hazard maps.
- In collaboration with firms, an algorithm to measure the physical risks to client firms in the event of flooding was developed by automatically placing client firm data and hazard data issued by the government on a single map.